

# Montana PCMH Program 2014 Quality Metric Data Feedback Webinar

July 16, 2015

1:30 – 3:00 pm

Montana Commissioner of Insurance and  
Securities

# Webinar Agenda

1. CSI & DPHHS, Amanda Eby and Carrie Oser
  - Speaker introductions and overview of clinic feedback reports
2. Mathematica – Nancy McCall and Juliet Rubini
  - Usability of quality metric data and recommendations for future data collection
3. Montana DPHHS Chronic Disease Prevention Bureau – Kathy Myers and Carrie Oser
  - Opportunities to work with clinics on clinical quality improvement
  - Overview of epidemiologists' work on data and issues to address for next year
4. Health Technology Services – Patty Kosednar
  - Overview of how HTS can help PCMHs
  - EHR functionality and operability

# Nancy McCall

**Nancy McCall (Sc.D., Health Economics, Harvard School of Public Health)**, a Mathematica senior fellow, has 30 years of experience conducting successful health services research assessing the effects of health system transformation on quality of care, health care utilization, costs, health outcomes, and budget neutrality. Dr. McCall is a nationally known expert in Medicare health care payment and policy and has published her findings in the *New England Journal of Medicine*, *Medical Care*, *Medical Care Research and Review*, and *Health Services Research*. Her research and technical assistance efforts have focused on a wide range of subjects, including evaluation of health care transformation demonstrations within the Medicare, Medicaid, and TRICARE insurance programs; federal and state health care delivery reforms; and access to and quality of care for consumers within federal, state, and commercial insurance programs. Dr. McCall has extensive experience leading successful evaluations of health care delivery and payment reform demonstrations that require the use of rigorous quantitative, qualitative, and mixed methods; primary data collection through key informant interviews, focus groups, and surveys; and analysis of a broad set of outcomes using an array of quantitative data including Medicare, Medicaid, TRICARE, commercial and all-payer claims databases, EHR data, and national and project-specific physician and patient survey data.

# Kathy Myers

Kathy Myers RN, BSN is currently the Chief of the Chronic Disease Prevention and Health Promotion Bureau which resides in the Public Health and Safety Division of the Department of Health and Human Services. Kathy was previously the Montana Cancer Control Programs Section Supervisor.

# Patty Kosednar

Patty is the Executive Director for Health Technology Services. Patty has been with Health Technology Services, the MT/WY Regional Extension Center for 5 years providing Health Technology Consulting, E.H.R Implementation, Meaningful Use Consulting, HIT Quality Improvement and Project Management to clients throughout Montana and Wyoming. She has been an IT/Project Management Professional for 26 years. Patty is a certified Project Management Professional (PMP) and an E.H.R certified Professional and received a certification in Nonprofit Administration from the University of Montana.

# **Usability of Montana PCMH 2014 Quality of Care and Utilization Data**

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**July 16<sup>th</sup> , 2015**

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Nancy McCall, Sc.D. • Juliet Rubini, R.N. • Kristin Geonnotti •  
Brianna Sullivan, B.A.

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# Agenda

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- Introduction
- Usability of quality of care data and recommendations for future data collection
- Clinical quality improvement activities
- IT-based quality improvement activities
- *This study was conducted with the support from the Robert Wood Johnson Foundation's State Health and Value Strategies Program*

# Goal for Montana Medical Homes

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- Montana's patient-centered medical home initiative is designed to improve quality of care and reduce medical costs
- Evaluating whether quality of care is improving because of the medical home initiative requires reliable, consistent, and valid performance data to be reported by clinics over time
- Data that have reporting errors cannot be used as a baseline measure of quality of care for purpose of measuring improvement



# Assessment of Usability of Quality of Care Data

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- **Our assessment of usability focuses upon validity and integrity of data submitted in first reporting period of 2014**
  - Fidelity to measure owner's specifications
  - Free of systematic errors
  - Face validity relative to each other and state and national benchmarks
- **Our assessment did not determine the degree to which patients with targeted clinical conditions were systematically and correctly identified and services provided**
  - Would require medical record review

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# Quality of Care Measures

# 2014 Quality of Care Reporting Requirements

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- **Four measures**
  - Blood pressure control
  - Tobacco use and intervention
  - A1c control
  - Age-appropriate immunization for children
- **Guidance**
  - Patient-level (Option 1) data or attested aggregate statistics (Option 2)
  - Specifications
    - Physician Quality Reporting System (PQRS)
    - National Immunization Survey (NIS)
- **69 PCMHs reported**

# Evaluation of Guidance

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- **Evaluated fidelity to PQRS and CHIPRA specifications**
  - Identified inconsistencies that might lead to differences in reporting across PCMHs
  - Minor differences between guidance and PQRS specifications for blood pressure control and A1c
    - Greater specificity in PQRS for all three measures
  - **Major difference for tobacco cessation and intervention**
    - Denominator included only users versus all adults with clinic visits
    - Numerator includes only patients who received intervention versus patients screened for tobacco use **and** users who received intervention
  - **Differences in childhood immunization relative to CHIPRA**
    - No numerator or denominator definition in NIS
    - Refusals/contraindications in denominator versus not in denominator
    - Montana guidance excluded seasonal flu and 2-dose Rotavirus

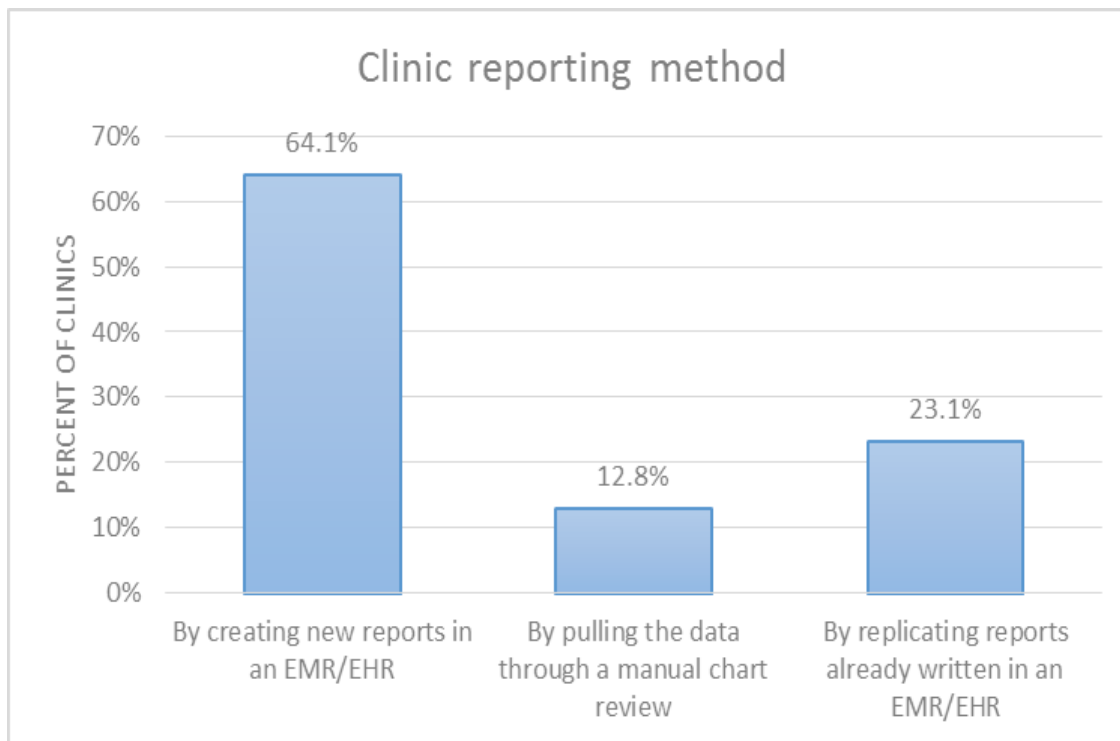
# PCMH Survey and Analysis of Data Integrity

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- **Survey asked PCMHs to**
  - Identify the methods used to collect the data they reported
  - Explain reporting criteria used(PQRS versus Montana guidance versus other)
  - 39 entities completed surveys for the universe of 69 clinics
- **Analysis of Data Integrity**
  - Reviewed findings from Montana Department of Public Health's review of initial submission
  - **Analyzed face validity of data**
    - High level findings on missing data or anomalous data patterns
    - National prevalence of diabetes, hypertension, tobacco use and control
    - Comparison between aggregate and patient-level PCMHs
    - Not intended as a thumbs up or down but identify areas for improvement

# Clinic Reporting Method

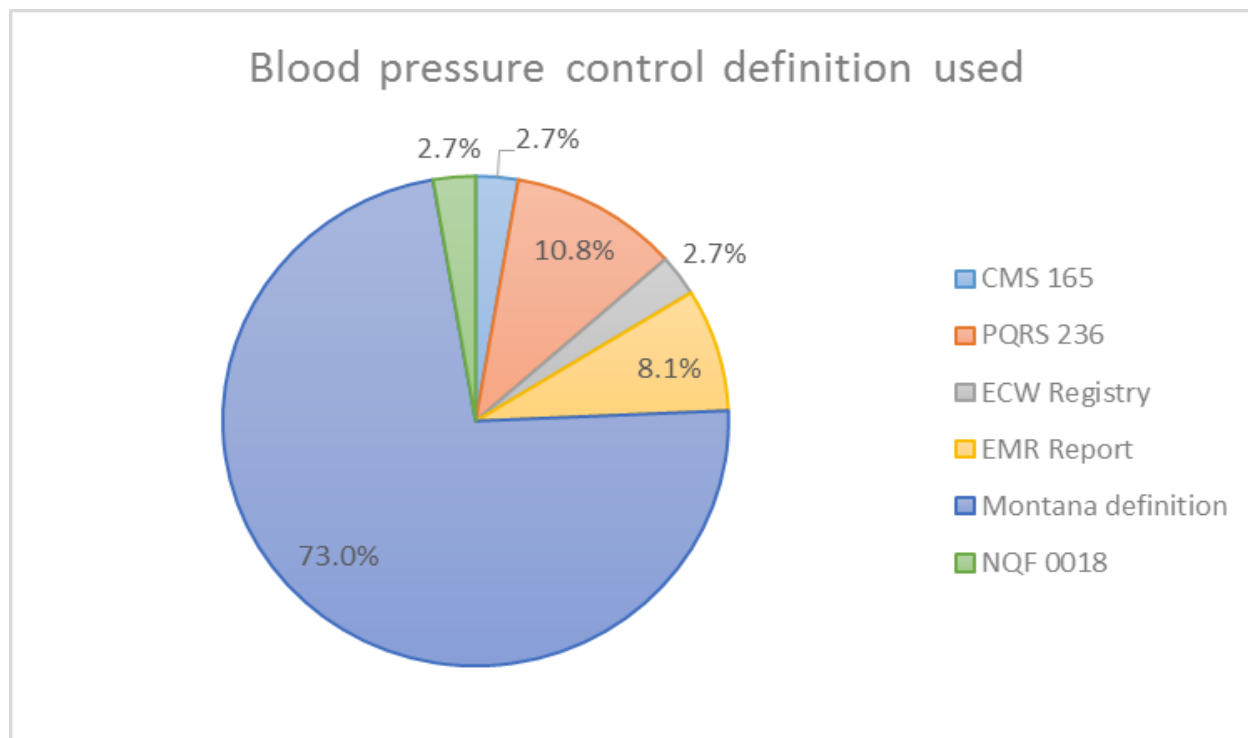
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Source: Mathematica analysis of Montana PCMH Quality of Care Reporting Survey, 2015.

# Blood Pressure Control Definition

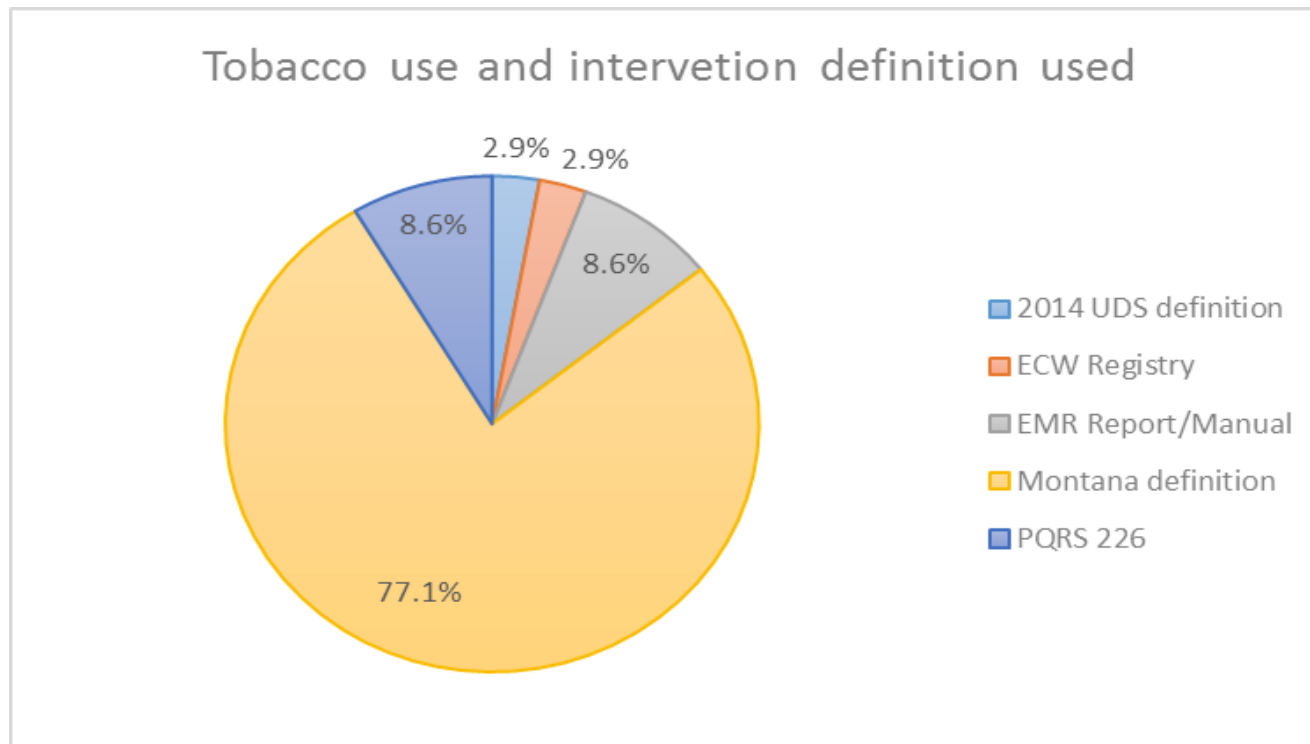
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Source: Mathematica analysis of Montana PCMH Quality of Care Reporting Survey, 2015.

# Tobacco Use and Intervention Definition

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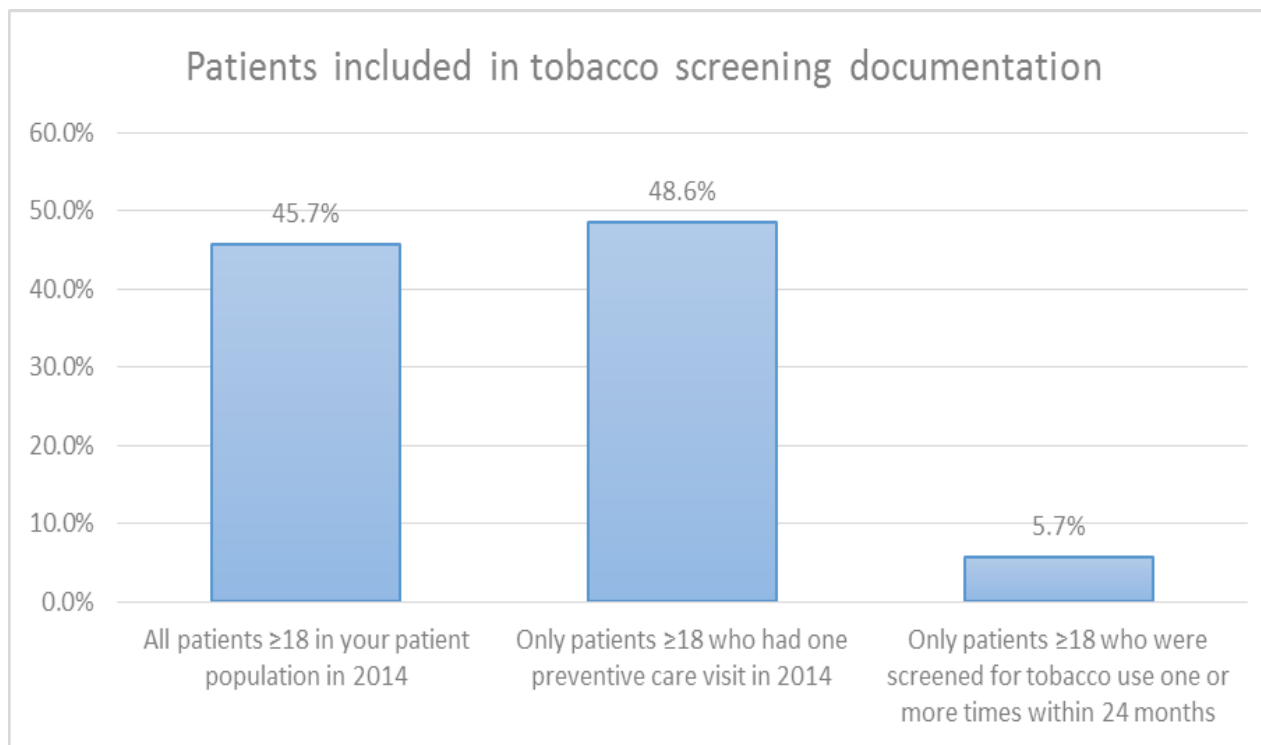


Source: Mathematica analysis of Montana PCMH Quality of Care Reporting Survey, 2015.



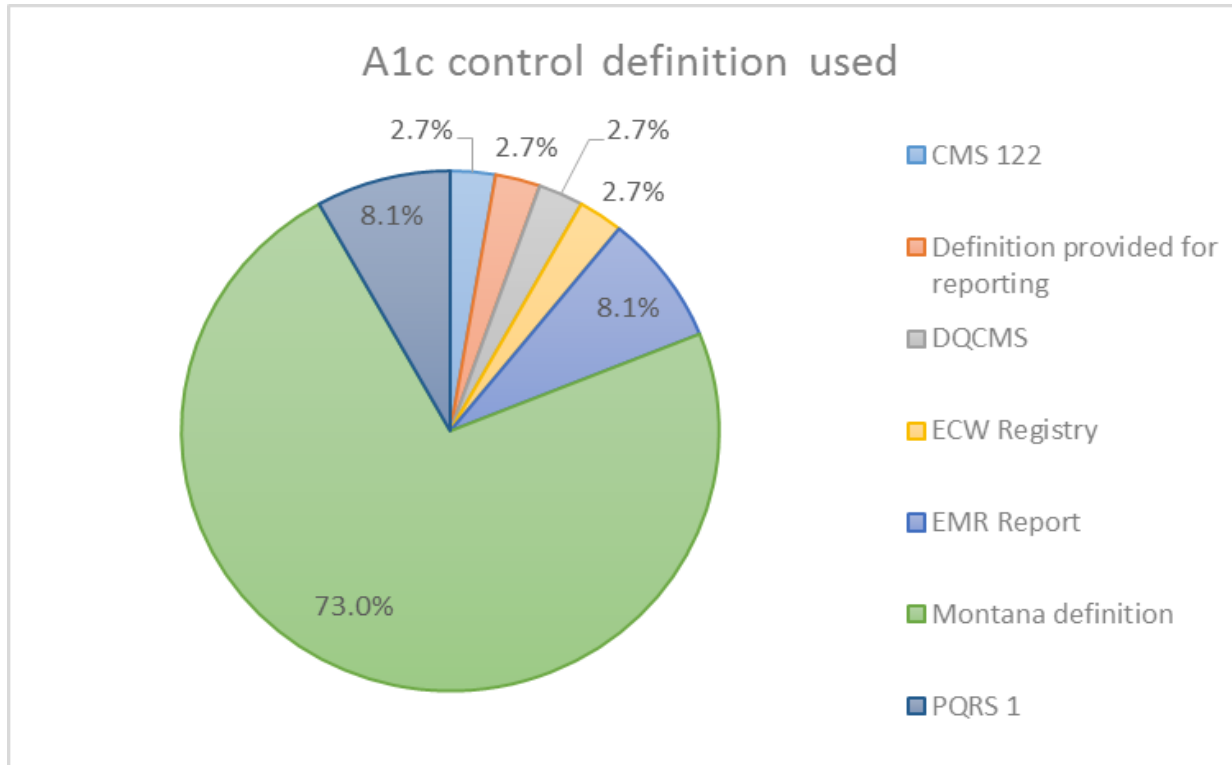
# Patients Included in Tobacco Screening

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Source: Mathematica analysis of Montana PCMH Quality of Care Reporting Survey, 2015.

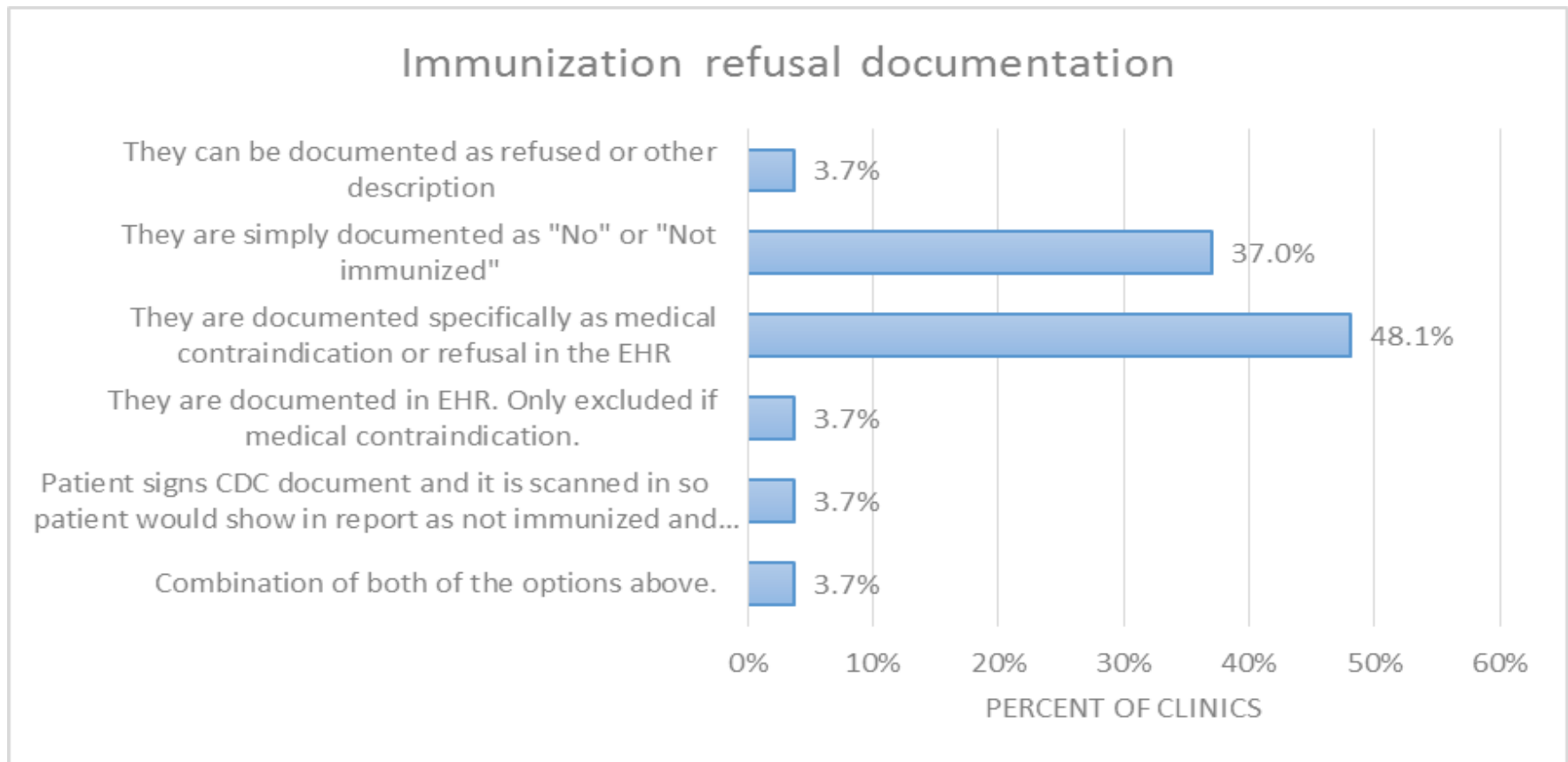
# A1c Control Definition



Source: Mathematica analysis of Montana PCMH Quality of Care Reporting Survey, 2015.

# Immunization Refusal or Contraindication Documentation

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Source: Mathematica analysis of Montana PCMH Quality of Care Reporting Survey, 2015.

# Missing Data

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- **Epidemiologists did a lot of data cleaning!**
- **Missing data**
  - **Patient identifiers – ranging from none to 1/3 of clinics affecting up to 25% of patients**
  - **Age and sex – limited missing data**
  - **Receipt of recommended service –**
    - Considerable variation in missing data across measures
    - Immunization was most problematic with a lot of missing data for the 7 individual immunizations versus the composite measure
  - **No children were documented in the numerator as a refusal or with a medical contraindication**

# Anomalous Data Patterns

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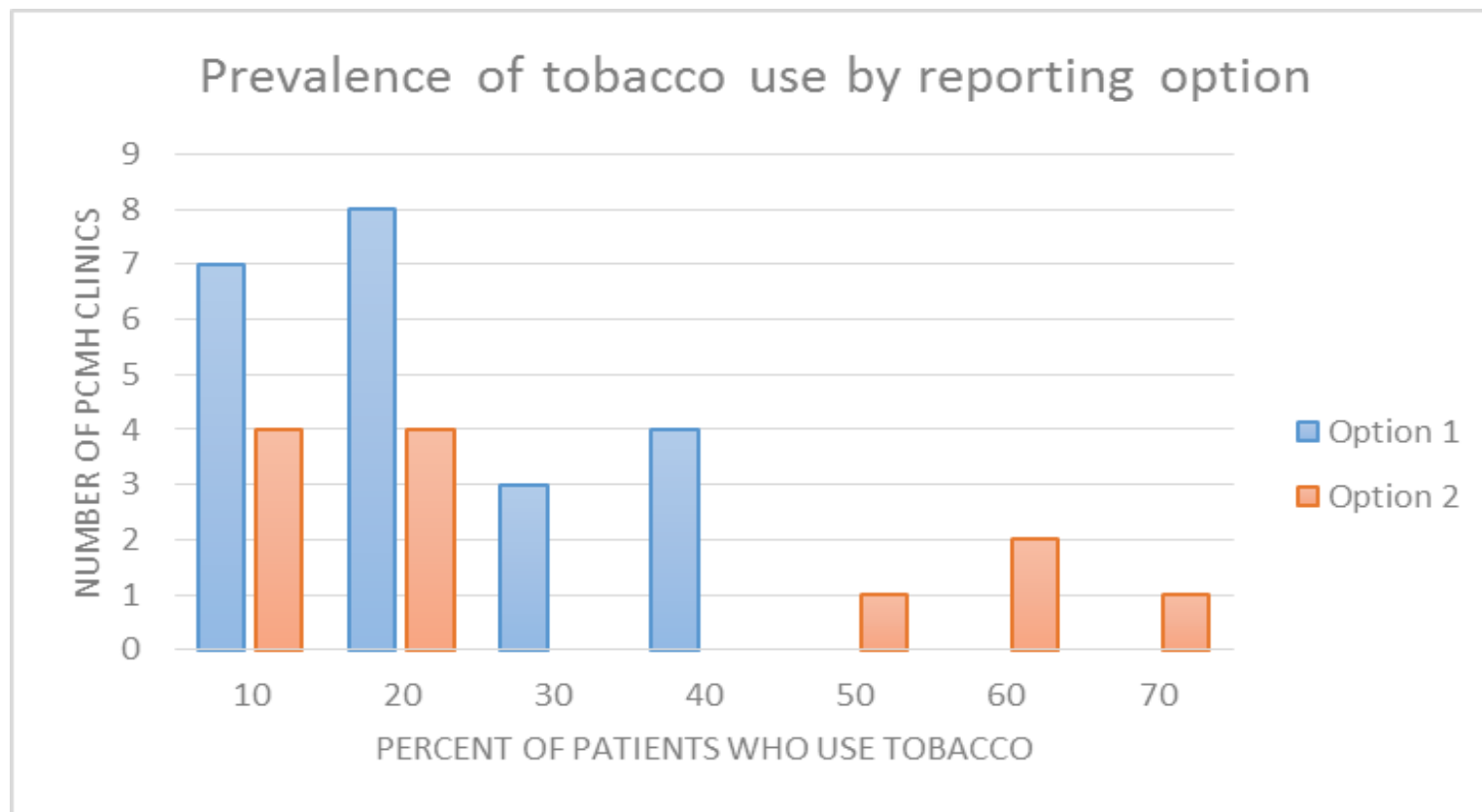
- **Dates of service**
  - **Out-of-range dates included in submission**
    - 70% of clinics had A1c dates not in 2014 or missing affecting 3% of patients
- **Tobacco non-users**
  - 6 clinics reported patient-level data only on tobacco users so prevalence of use could not be estimated
- **Aggregate data reporting for immunization required resubmission by 25 clinics**
  - Summation of individual immunizations > composite measure
- **Inconsistent identification of control when A1c = 9.0**

# Anomalous Data Patterns

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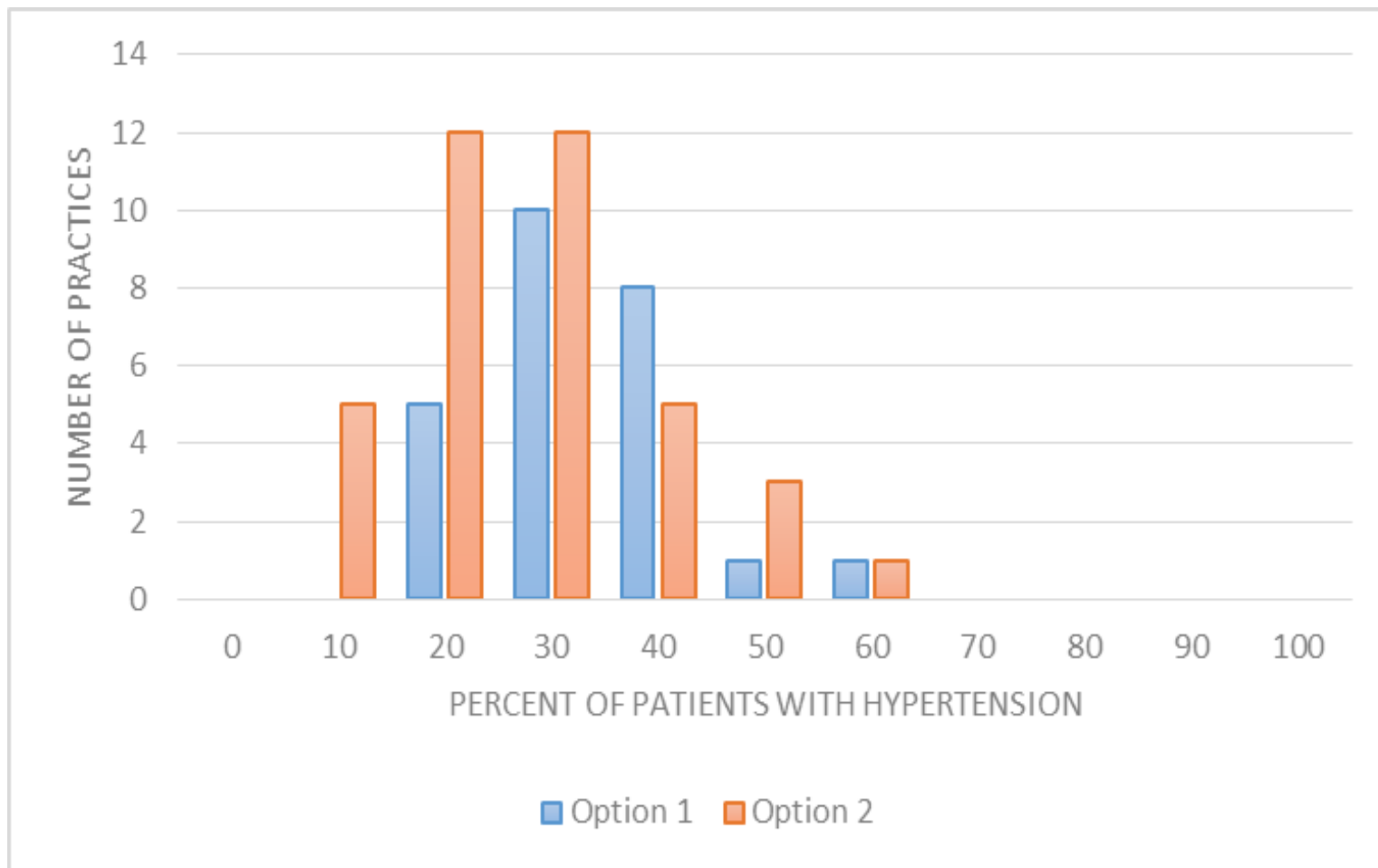
- **Formatting led to the need for a lot of data cleaning**
  - **Dates in non-date formats**
  - **Combined systolic and diastolic readings**
  - **A1c levels reported as numbers and percentages**
    - None done, N or 0 inserted when not done
  - **Immunizations requested Y, N, MC, R**
    - Individual vaccine name, number of vaccines received, 100%
  - **Tobacco cessation intervention request Y, N**
    - Name of intervention often provided with some dates embedded
- **Data editing rules applied**
  - **Greater than 95% of patient-level data are used to assess face validity**

# Prevalence of Tobacco Use by Option



Source: Mathematica analysis of Montana PCMH Quality of Care Data, 2014.

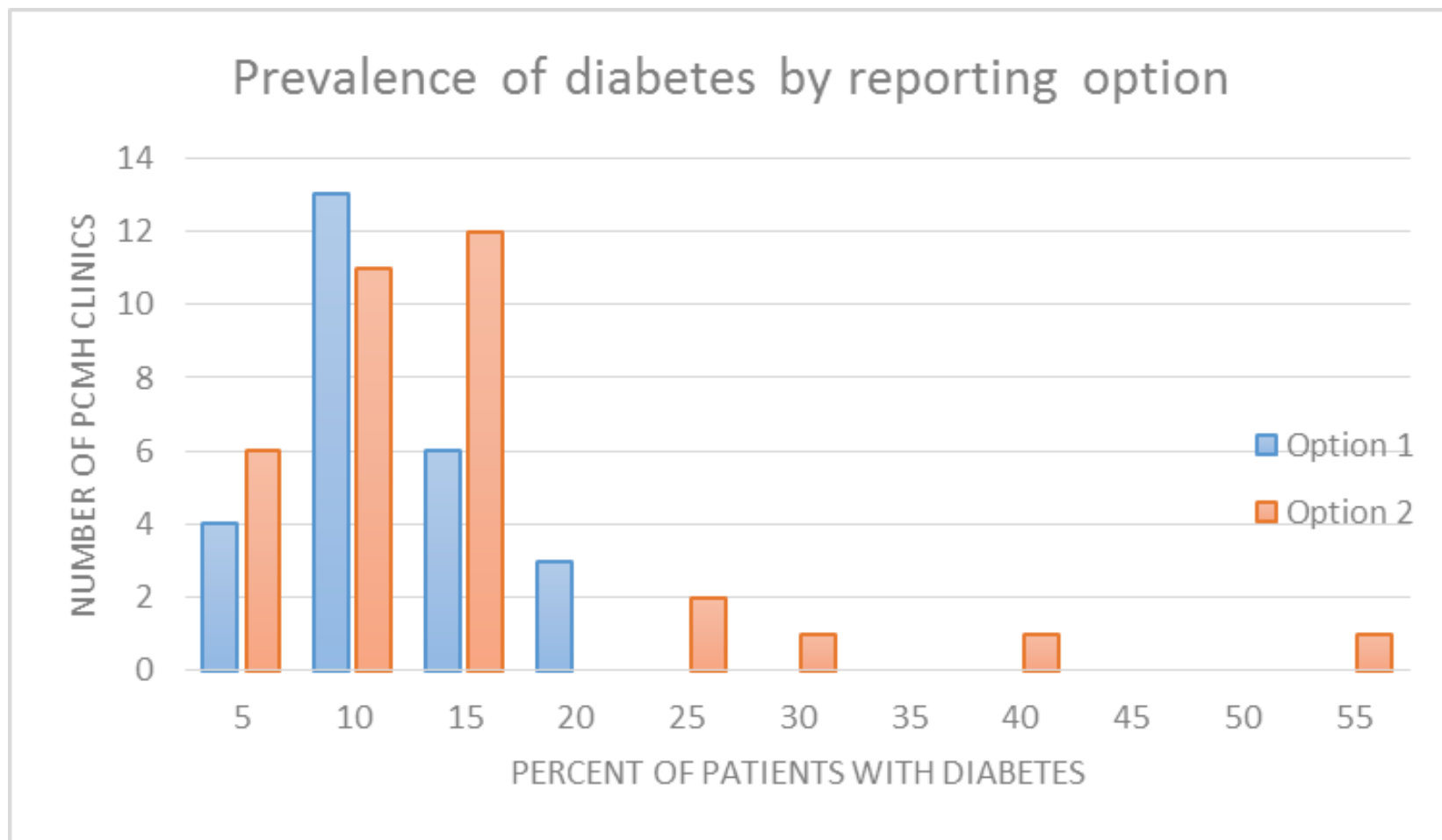
# Prevalence of Hypertension by Option



Source: Mathematica analysis of Montana PCMH Quality of Care Data, 2014.

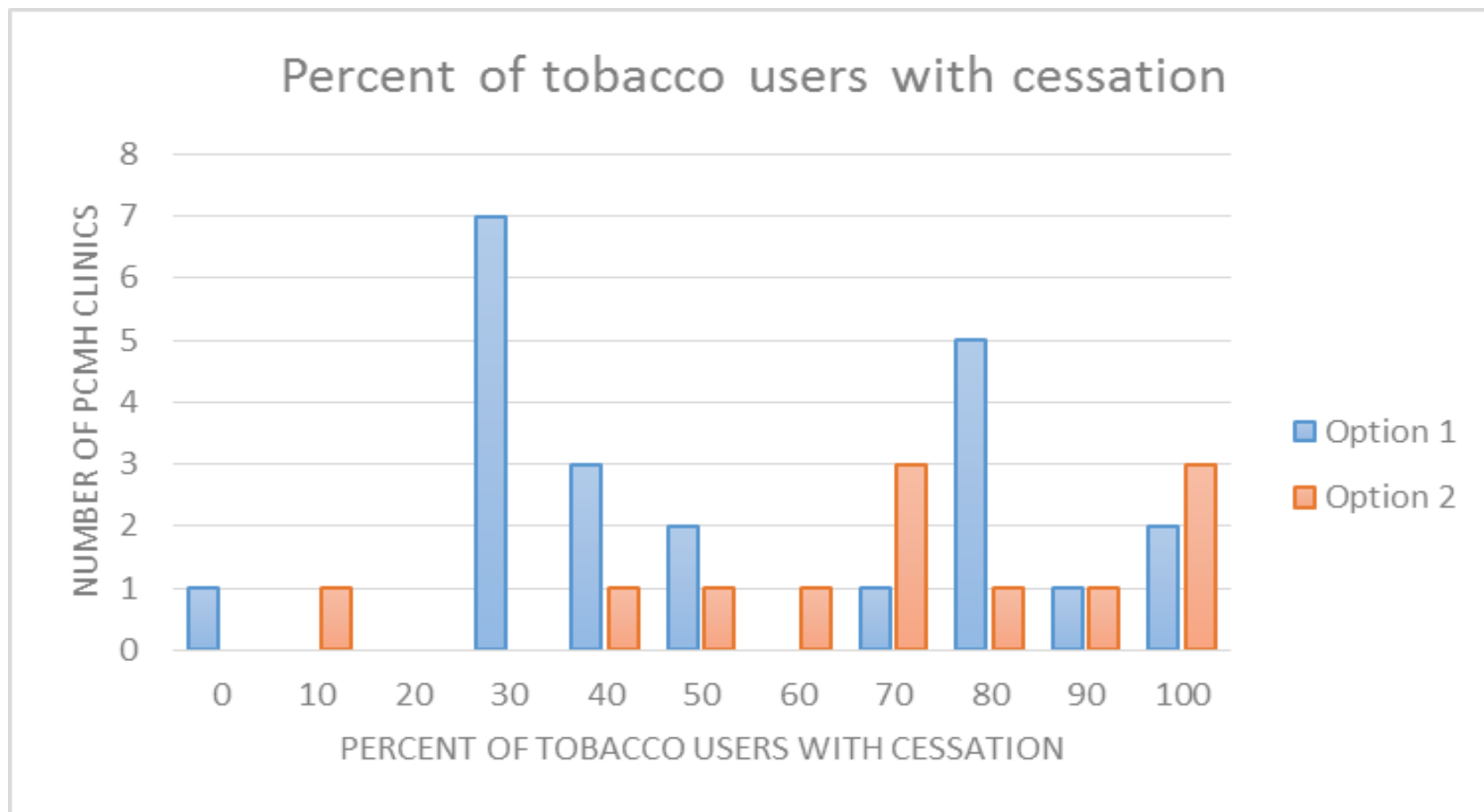


# Prevalence of Diabetes by Option



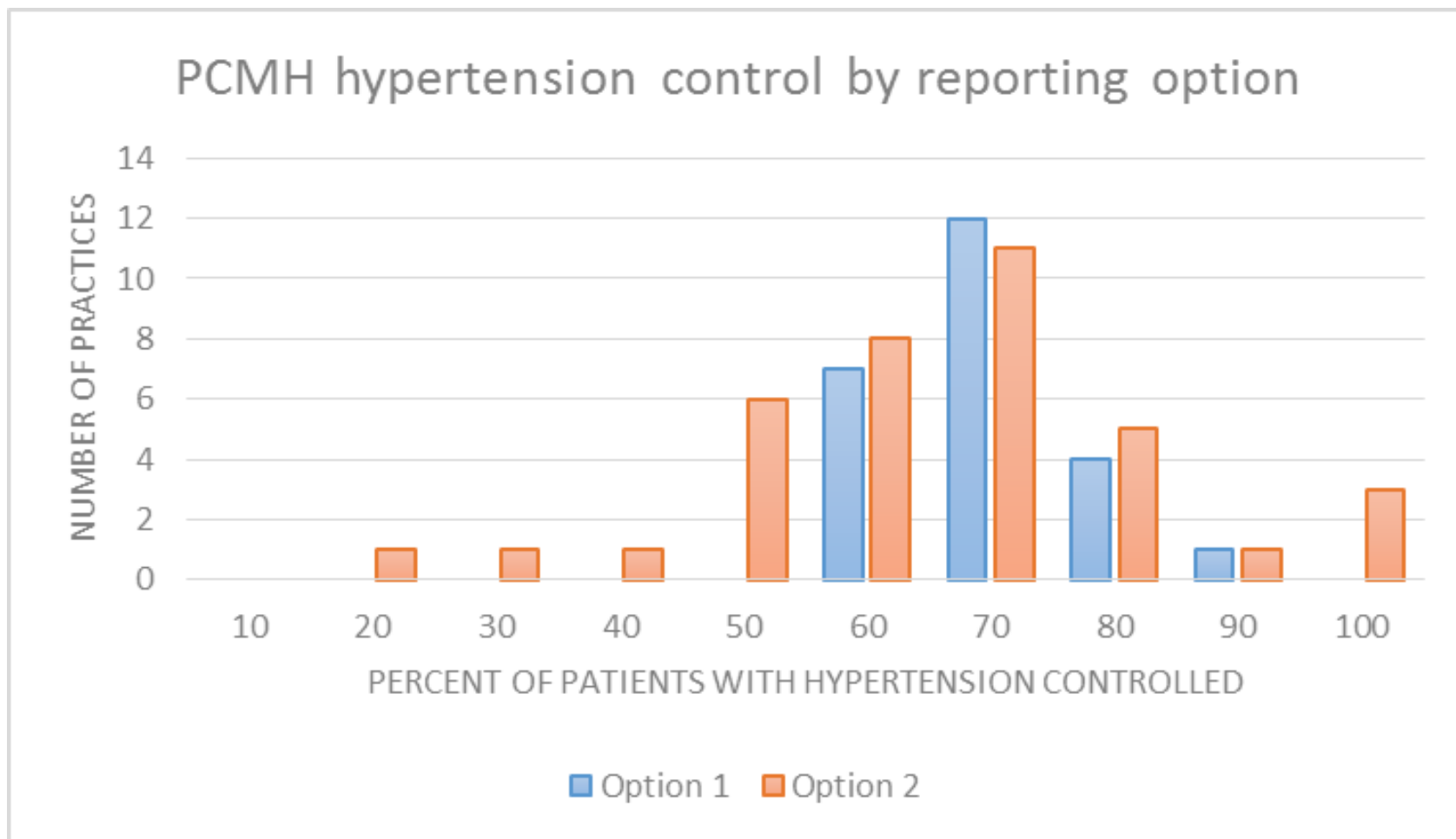
Source: Mathematica analysis of Montana PCMH Quality of Care Data, 2014.

# Smoking cessation by Option



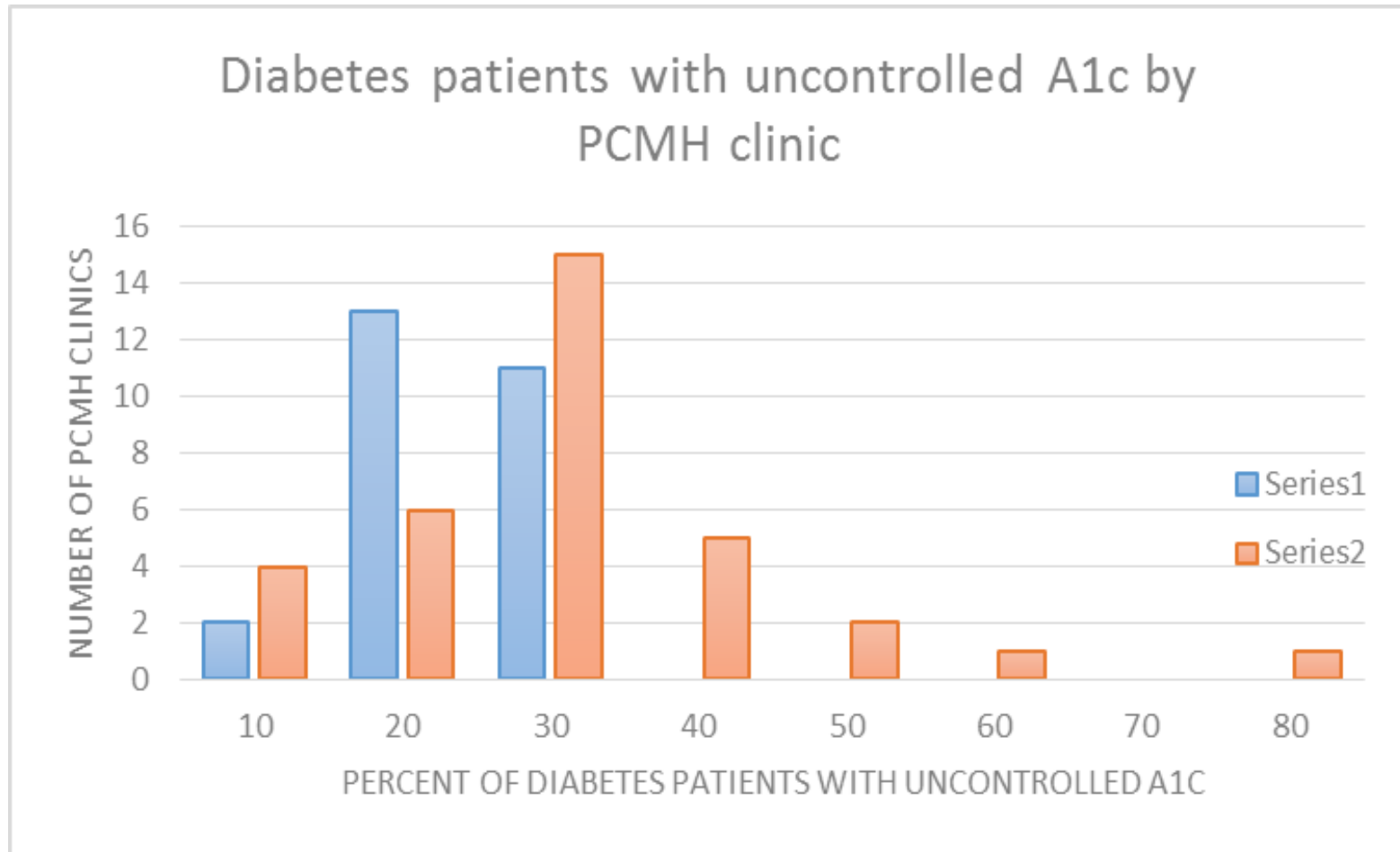
Source: Mathematica analysis of Montana PCMH Quality of Care Data, 2014.

# Blood Pressure Control by Option



Source: Mathematica analysis of Montana PCMH Quality of Care Data, 2014.

# A1c Control by Option



Source: Mathematica analysis of Montana PCMH Quality of Care Data, 2014

# Recommendations

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- **Offer clinics technical assistance in reporting**
  - If prevalence or measure achievement out of range of other clinics and there is no clinical reason for the discrepancy
- **Offer clinics quality improvement activities to help move the needle**
- **Develop a standardized reporting tool to prompt user when invalid values are added**
  - Increases burden on clinics and costs of development but increases data validity
  - Develop consistent data recoding and cleaning edits and rules

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# Questions?



Montana  
**Chronic Disease Prevention**  
& Health Promotion Bureau

# **Opportunities for Technical Assistance for MT PCMH Clinics**

7/16/2015



# Data Submission-Successes

- Unexpected number of clinics submitted patient level data
  - Additional comparisons
  - Targeted quality improvement activities
- Provided a good sample size
- Data quality

# Data Submission - Population

Population

Adults 18-85 years in  
the PCMH patient  
population

Disease  
Status

Diagnosis of  
Hypertension

No Diagnosis

Control  
Status

Documented BP at  
most recent visit  
during reporting  
period SBP <140 and  
DBP 90 mmHg

Not Controlled

# Data Submission - Guidance

Variable Name	Reporting definition
Sex	M (for male) or F (for female)
Date of birth	(month, numeric, 2 digits) (day, numeric, 2 digits) (year, numeric, 4 digits)
Date quality measure was measured (bp measured; cessation counseling provided; A1c measured)	(month, numeric, 2 digits) (day, numeric, 2 digits) (year, numeric, 4 digits)
BP (systolic and diastolic)	(numeric, 3 digits for systolic) (numeric, 3 digits for diastolic)
A1C	(numeric, 2 digits followed by a decimal followed by 1 digit)

# Data Submission - Guidance

Variable Name	Reporting definition
Smoking status	Y (for Yes if current tobacco user) N (for No if not current tobacco user)
Cessation intervention	Y (for Yes if intervention provided) N (for No if intervention not provided)
Each childhood immunization measure	Y (for Yes if immunization has been provided) N (for No if immunization has not been provided) MC (for Medical contraindication) R (for refusal to be vaccinated)

# Data Submission-Challenges

- Lack of consistency in pulling data.
- Lack of consistency following guidance.
  - Data from previous years
  - Data submitted in a different format
  - Data submitted with a ‘test date’ but no test results reported
  - Error reporting blood pressure and A1c values
  - Incomplete data submission

# Data Submission- Next Reporting Period

- Follow the guidance provided by the CSI.
- Take advantage of technical assistance prior to next submission.
- Review data prior to submission to identify data errors. i.e. date of birth, unreliable values.

# Partnerships = Opportunities

- DPHHS/REC have partnered together to offer technical assistance related to Quality Improvement to PCMH clinics.
- This partnership has produced a Health Information Technology/Health Quality Improvement Toolkit. (discussed shortly)

# Subject Matter Experts

- DPHHS will provide clinical technical assistance to the PCMH clinics on the specific quality metrics (hypertension, diabetes, tobacco and immunization).
- The Regional Extension Center will provide technical assistance on E.H.R. functionality.
- This will be provided through the HIT/HQI Toolkit.



# Benefits to Clinics

- Improved patient outcomes.
- Improved use of E.H.R.
- Improved ability to adhere to various reporting requirements.
- Ability to compare clinic's performance to other PCMH clinics.

# Next Steps

- On the back page of your report is the contact information for you to take advantage of this opportunity.
- You can contact any of the three of us listed- Amanda, Kathy or Patty.
- This opportunity has no charge.

# Contact Information

**Kathy Myers**  
**406-444-3385**  
[kmyers@mt.gov](mailto:kmyers@mt.gov)

**Carrie Oser**  
**406-444-4002**  
[coser@mt.gov](mailto:coser@mt.gov)

# Questions??



## Leveraging E.H.R Functionality for Health Quality Improvement MT PCMH Workgroup

Presented by: Patty Kosednar, HTS Executive Director  
07/16/2015

HTS, a division of Mountain Pacific Quality  
Health Foundation



Health Technology  
Services

*A division of*

**Regional Extension Center**

**A division of Mountain-Pacific Quality Health**

- ▶ Health Technology Services (HTS) is a division of Mountain-Pacific Quality Health (MP). MP is the QIN/QIO for MT/WY/AK/HI
- ▶ HTS has been the Regional Extension Center for Montana and Wyoming since 2010 helping facilities implement E.H.Rs and reach Meaningful Use.
- ▶ Focusing on assisting healthcare facilities with utilizing and leveraging their Health Information Technology (HIT) to improve health care, quality, efficiency and outcomes.



Health Technology  
Services

*A division of*

**Regional Extension Center**

**A division of Mountain-Pacific Quality Health**

# Background of Toolkit

- ▶ Past and current HQI efforts found lack of access, use or knowledge of E.H.R functionality that could be used to support HQI.
- ▶ Challenges with pulling, validating and understanding or trusting data
- ▶ Administrative burden of many disparate HQI projects or reporting requirements.
- ▶ Funded by MT DPHHS, HTS created a HIT/HQI Toolkit to assist organizations with leveraging their HIT/E.H.R and the PDSA QI methodology to support and advance their HQI initiatives and requirements.



# HIT/HQI Toolkit Methodology

- ▶ Standard Project Management Approach
  - Scope definition, control and monitoring
- ▶ Use of SMART goals for performance criteria
- ▶ Plan Do Study Act – QI cycle
- ▶ Use of 7 basic data collection tools
- ▶ E.H.R functionality overview with QI specific information
- ▶ Detailed project plan and project templates



## **HIT/HQI Inputs:**

- Meaningful Use of E.H.R
- Clinical best practices and guidelines
- Data analytics, reporting, and sharing
- Education, training, project management and facilitation
- Continuous process improvement (PDSA)
- Quality and data program alignment (MU, PCMH, ACO, IQR, UDS, PQRS, etc)



## **Results:**

- Improved patient outcomes
- Reduced healthcare costs
- Improved care processes
- Increased revenue
- Repeatable/standardized approach for HQI

# E.H.R functionality for HQI

- ▶ CPOE
- ▶ Patient Portals
- ▶ Clinical Decision Support
- ▶ Patient Education
- ▶ Patient Reminders
- ▶ Lab interfaces
- ▶ HIE/Transition of Care /Discharge info/Public Health Registries

# E.H.R Functionality for HQI

## ▶ CPOE

- data points can be retrieved from CPOE to effect care improvement
- CPOE enhances use of clinical decision support rules or guidelines at the point of care

## ▶ Patient Portals

- Can provide direct, “outside the office” access to patients.
- Use it for patient education
- Engaging patients in reporting their own measurements for blood pressure or blood sugar online, real time monitoring.

# E.H.R Functionality for HQI

- ▶ Clinical Decision Support (CDS)
  - Target conditions and standardize treatments
    - Data Display: flow sheets, patient data reports and graphic displays
    - Workflow Assistance: task lists, patient status lists, integrated clinical and financial tools
    - Data Entry: templates to guide documentation and structured data collection
    - Decision Making: access to resources rule based alerts, clinical guidelines or pathways, patient / family preferences, and diagnostic decision support

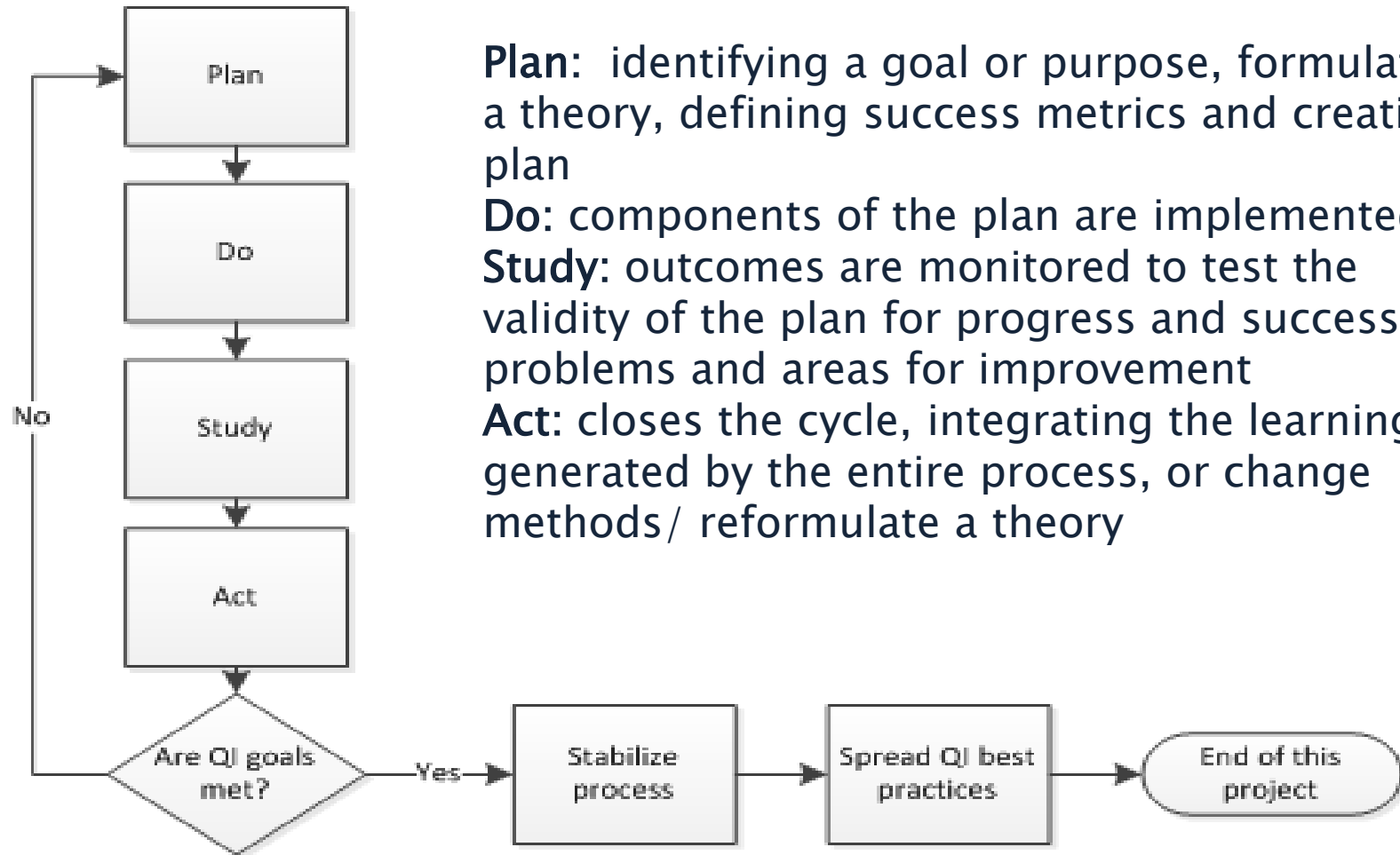
# E.H.R Functionality for HQI

- ▶ Patient Education
  - Provide credible source of information
  - Encourage patient engagement
- ▶ Patient Reminders
  - Proactive preventative care
  - Follow up and care coordination
- ▶ Lab interfaces (or lab results as structured data)
  - data points can be retrieved from lab results to effect care improvement
  - Lab results (structured data) enhances use of clinical decision support rules or guidelines at the point of care

# E.H.R Functionality for HQI

- ▶ HIE/Transition of Care /Discharge info/Public Health Registries
  - improve communication between providers and/or facilities.
  - Provide and enhance continuity of care delivery.
  - Data collection and analytics
  - Population health data

# Review of PDCA Cycle



# HTS HIT/HQI Project outcomes

- ▶ Leverage E.H.R functionality and data to support and advance QI efforts
- ▶ Identify and implement workflows and clinical best practices to support QI
- ▶ Manage QI efforts with a streamlined/efficient approach
- ▶ Create a repeatable HIT/HQI process for organization
- ▶ Align quality efforts to reduce admin burden
- ▶ Improve quality measure performance



# HTS HIT/HQI Services

- ▶ Assist with data collection/validation
- ▶ Assist with workflow validation for accurate data collection in E.H.R
- ▶ Assist with identifying additional configurations that support QI
- ▶ E.H.R Vendor Liaison
- ▶ Collaboration with DPHHS and QIO to provide clinical best practices and education
- ▶ Align quality reporting efforts; PCMH, MU, UDS, PQRS, etc.

# Questions?



# Health Technology Services

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Executive Director/HTS

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[www.htsrec.com](http://www.htsrec.com)

Thank You

# Questions for CSI on the PCMH Program

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<http://csimt.gov/issues-reports/pcmh/pcmh-stakeholders/>